

REMARKS

In the Office Action, the Examiner noted that Claims 1-43 are pending in the application. By this Amendment, Claims 1-9, 19-27, and 35-43 have been withdrawn, leaving Claims 10-18, and 28-34 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

Election of Restricted Claims

The claims stand restricted as follows:

Group I, directed to Claims 1-9, allegedly drawn to a method for maintaining hydrogen purity in an electrical generator.

Group II, directed to Claims 10-18, 28-32, allegedly drawn to a system for maintaining hydrogen purity in an electrical generator.

Group III, directed to Claims 33-34, allegedly drawn to a system and method for maintaining hydrogen purity in an electrical generator.

Applicant hereby elects Group II, directed to Claims 10-18 and 28-32 without traverse.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 10-12, 17-18 and 28-30 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application 2003/0090164 to Brosnihan et al. Applicant traverses this rejection for the following reasons, therefore, reconsideration and allowance are respectfully requested.

Brosnihan et al. teaches an apparatus for monitoring the operation of a electrical generator (Item 70) that produces electrical power (paragraph 18). Hydrogen gas is introduced into the electrical generator (Item 70) from a supply (Item 104) facilitate the cooling of the electrical generator and increase its efficiency (paragraph 20). The apparatus taught by Brosnihan et al. monitors the operation of the electrical generator and samples the hydrogen gas to determine the hydrogen gas purity. The sampled hydrogen gas may be returned to the electrical generator or vented (paragraph 20). A processor 54 provides suitable control functionality for the apparatus.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Variant Inc.*, 3 U.S.P.Q.2d 1766 (Fed Cir. 1987). Applicants independent Claims 1 and 28 disclose a system that has a *hydrogen generator* coupled to an *electrical generator*. In Examiner's Office Action, Examiner states that Brosnihan et al. discloses a hydrogen generator, Item 70, Fig 2. Applicant respectfully disagrees. Brosnihan et al. discloses an electrical power generator that is cooled using hydrogen gas (See generally Brosnihan, Paragraph [0018]). As disclosed in the Background of the Invention (Paragraphs [0002] – [0006]) of the present application, electrical power generators utilize hydrogen gas to dissipate heat and reduce the drag on the generator windings. A *hydrogen generator* is a different apparatus from the *electrical power generator*. A hydrogen generator produces hydrogen gas from a precursor material such as water, methane or natural gas (see Paragraph [0022] in the present application). Applicant respectfully submits that Brosnihan et al. does not disclose, teach or suggest a hydrogen generator coupled to an electrical generator as required by independent Claims 10 and 28. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Dependent Claims 11-12, 17-18 and 29-30 all incorporate either directly, or indirectly the limitations contained in their respective parent Independent Claims 10 and 28. The dependent Claims further provide additional limitations that are not disclosed, taught or suggested by Brosnihan et al. For example, dependent Claim 12 requires that the hydrogen generator be configured to generate hydrogen gas at a predetermined pressure and producing the hydrogen gas in response to a reduction in pressure in the electrical generator. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

#### Claim Rejections Under 35 U.S.C. § 103(a)

Claims 13-16 and 31-32 stand rejected under 36 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent Application 2003/0090164 to Brosnihan et al. in view of U.S. Patent 5,510,201 to Werth. Applicants respectfully traverse this rejection.

As discussed above in reference to the rejections under 35 U.S.C. §102(b), Brosnihan et al. fail to teach all of the elements of Independent Claims 10 and 28, and for at least this reason, Brosnihan et al. fails to render the claims obvious. Werth teaches a hydrogen generator that is coupled to a fuel cell. The hydrogen gas generated is used as a *fuel* by the fuel cell to produce

electrical power. The fuel cell taught by Werth may be a polymer-electrode-membrane (PEM) fuel cell which converts hydrogen in the presence of a catalyst to produce electrical power.

In order to establish a *prima facie* case of obviousness, the references must have appeared to suggest the claimed subject matter. *In re Rinehart*, 189 U.S.P.Q. 143, 147 (C.C.P.A. 1976). As discussed above, the electrical generator is a separate and distinct apparatus from the hydrogen generator. Further, Werth does not teach an electrochemical or a PEM hydrogen generator as is required by dependent Claims 13 and 31. Werth teaches a *PEM fuel cell*, Applicant respectfully submits that a PEM fuel cell is not the same or equivalent to a PEM hydrogen generator. A PEM fuel cell *produces* electrical power from hydrogen, a PEM hydrogen generator produces hydrogen from a precursor material such as water. Applicant respectfully submits that Brosnihan et al. in light of Werth does not suggest a system for maintaining hydrogen purity in an electrical generator and a *prima facie* case of obviousness has not been made. Accordingly, Applicant respectfully requests reconsideration, withdrawal of this rejection, notice of allowance thereof, and a notice of allowance of all claims depending from independent Claims 10 and 28.

Examiner also alleges obviousness of the claimed invention by one of ordinary skill in the art through the modification of Brosnihan et al. with the limitations of Werth. However, as discussed above, the invention claimed in Claims 13 and 31 are to an electrochemical hydrogen generator having a polymer electrode membrane and not a PEM fuel cell. As such, Applicant submits that the Examiner has not shown where each and every element of the claimed invention is disclosed in the prior art in such a manner as to perform as the claimed invention, and therefore a *prima facie* case of obviousness has not been established.

In view of the foregoing, Applicant submits that the cited references fail to teach or suggest each and every element of the claimed invention and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do with the patent Applicant has done, fail to offer any reasonable expectation of success in combining the reference to perform as the claimed invention performs, and discloses a substantially different invention from the claimed invention, and therefore cannot properly be used to establish a *prima facie* case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal the rejection under 35 U.S.C. §103(a), which Applicant considers to be traversed.


Conclusion

For at least the foregoing reasons advanced above, Applicants respectfully request withdrawal of these rejections. It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly reconsideration and allowance is earnestly requested.

The Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment, to Deposit Account 503125.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of to Deposit Account No. 503125.

Respectfully submitted,

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